

1 **Clean Version Of The Pending Claims Under 37 C.F.R. § 1.121(c)(3):**

2 Claims 1-20, now pending, are submitted below in accordance with 37  
3 C.F.R. §1.121(c)(3), which presents a clean version of the entire set of pending  
4 claims.

5  
6 *sub B1*  
7 1. (Once Amended) A method of synchronizing asynchronous time-  
8 based and motion data in a system in which the time-based data and the motion  
9 data are transmitted by a server over a network to a client, the method comprising:  
10 retrieving a time-based data stream and a motion data stream at the server,  
11 each stream comprising frames of data;  
12 variably buffering one of the time-based data stream and the motion data  
13 stream to produce two streams having synchronized frames; and  
14 using the synchronized frames at the client for playback of synchronized  
15 motion and time-based data to a user.

16 2. (Unchanged) *B* The method of claim 1 wherein the variably buffering  
17 occurs at the server.

18  
19 *sub B1*  
20 3. (Once Amended) The method of claim 1 further including  
21 calculating a difference between delays for the motion data stream and the time-  
22 based data stream through the server to determine an amount of variable buffering  
23 for a faster of the two streams.  
24  
25

1 4. (Unchanged) The method of claim 1 further including transferring  
2 only those data values for a frame that have changed since a last frame was  
3 transmitted.

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5 5. (Unchanged) The method of claim 1 wherein the network is the  
6 Internet.

7  
8 6. (Unchanged) The method of claim 1 wherein the motion data is  
9 mapped to control the movement of a virtual figure displayed in a scene at the  
10 client.

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11  
12 7. (Unchanged) The method of claim 1 wherein the motion data is  
13 generated by a body suit.

14  
15 8. (Unchanged) The method of claim 1 wherein the motion data  
16 includes background data for use in producing a scene at the server.

17  
18 9. (Unchanged) The method of claim 1 wherein data transfer from the  
19 server to the client is concurrent with the receipt of the time-based data stream and  
20 motion data stream at the server.

21  
22 10. (Unchanged) The method of claim 1 wherein the time-based data is  
23 voice data.  
24  
25

1 11. (Unchanged) The method of claim 1 wherein the synchronized data  
2 frames include one or more data channels, the server transmitting on the network  
3 at a predetermined interval between synchronized data frames a descriptor packet  
4 which describes each channel contained in the synchronized data frames such that  
5 a client may join in progress a multicast of synchronized data frames.  
6

7 12. The method of claim 1 wherein the time-based data is a pre-recorded  
8 audio track and the method further includes synchronizing playback of the pre-  
9 recorded audio track at the server and buffering of the pre-recorded audio track to  
10 allow for coupling with motion data generated in time with the playback of the  
11 pre-recorded audio track.  
12

13 13. (Unchanged) The method of claim 1 further including sequencing  
14 synchronized frames output from the server to the client to provide for ordered  
15 playback of the synchronized frames to a user at the client.  
16

17 14. (Unchanged) A method of packaging synchronized frames of data  
18 where each frame includes one or more channels of data in a system in which  
19 synchronized frames are transmitted by a server over a network to a client, the  
20 method comprising:

21 storing a last data value for each channel in each frame transmitted over the  
22 network;

23 retrieving new synchronized frames for transmission over the network; and

24 packaging and transmitting over the network only data for channels having  
25 changed data values.

1  
2 15. (Unchanged) The method of claim 14 further including transmitting  
3 a descriptor packet at a predetermined interval over the network, the descriptor  
4 packet including channel descriptors for each channel in the synchronized frames.  
5

6 16. (Unchanged) An apparatus for synchronizing asynchronous time-  
7 based and motion data in a system in which the time-based data and motion data  
8 are transmitted by a server over a network to a client, the apparatus comprising:

9 a data retriever for retrieving a time-based data stream and a motion data  
10 stream at the server, each of the streams comprising frames of data;

11 a data stream synchronizer for buffering one of the time-based data stream  
12 and the motion stream to produce two streams having synchronized frames; and

13 a packetizer for packaging synchronized frames of motion data and time-  
14 based data for use at the client for playback of synchronized motion and time-  
15 based data to a user.  
16

17 17. (Unchanged) The apparatus of claim 16 further including a  
18 multicaster for multicasting the synchronized motion and time-based data to clients  
19 couple to the network.  
20

21 18. (Unchanged) The apparatus of claim 16 wherein the packetizer  
22 includes a storage device and a comparator, the storage device for storing data  
23 values last transmitted over the network for each channel in each of the  
24 synchronized frames, the comparator for comparing data values for new frames  
25 with the data values stored in the storage device, the packetizer only packaging for

1 transmission to the client channel data for channels having changed data values as  
2 determined by the comparator.

3  
4 19. (Unchanged) A method for playing back time-based and motion  
5 based data that has been synchronized comprising:

6 mapping the motion based data to control the movement of a virtual figure  
7 in a scene displayed at a client; and

8 playing back in synchronization with movement of the virtual figure the  
9 time-based data.

10  
11 20. (Once Amended) A method of synchronizing asynchronous motion  
12 and audio data in a system in which the motion and the audio data are transmitted  
13 by a server computer to one or more clients, the clients providing a real time output  
14 of synchronized motion and audio data, the method comprising:

15 retrieving an audio stream including voice data and a motion data stream  
16 including one or more motion data channels at the server, each stream including  
17 frames of data;

18 calculating a delay through the server for a frame of data on each of the  
19 streams;

20 calculating a difference between the delay for the audio stream and the  
21 motion data stream to determine which of the two streams is faster;

22 variably buffering a faster of the streams to synchronize the audio stream  
23 and the motion data stream resulting in two output streams having synchronized  
24 data frames;

25 packaging the synchronized data frames;

1 multicasting the synchronized data frames to one or more clients over a  
2 network;

A2 3 at each client computer, using the synchronized data frames for  
4 synchronous playback of the audio and motion data for display to a user.

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